

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS				1. REQUISITION NUMBER 852-6069		PAGE OF PAGES 1 36	
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30							
2. CONTRACT NUMBER 50SBNB7C1112		3. AWARD/EFF. DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER 52SBNB7C1112	
7. FOR SOLICITATION INFORMATION CALL -->		a. NAME KATHLEEN LETTOFSKY		b. TELEPHONE NUMBER (No Collect Calls) (301)975-6342		8. OFFER DUE DATE/LOCAL TIME 05/15/97 3:00 PM	
9. ISSUED BY NAT. INST. OF STANDARDS & TECH. ACQUISITION & ASSISTANCE DIV. BLDG. 301, ROOM B117 GAITHERSBURG, MD 20899-0001		10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SET ASIDE: 000 % FOR <input type="checkbox"/> SMALL BUSINESSES <input type="checkbox"/> SMALL DISADV. BUSINESSES <input type="checkbox"/> 8(A) SIC: 5049 FSC: SIZE STANDARD: 500		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS	
				13a. THIS CONTRACT RATED ORDER UNDER DPAS (15 CFR 700) <input checked="" type="checkbox"/>		13b. RATING NS	
				14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP			
15. DELIVER TO Nat. Inst. of Stds. & Technology Bldg. 301, Shipping & Receiving Attn: Jim Cline, X5793 Gaithersburg, MD 20899				16. ADMINISTERED BY NAT. INST. OF STANDARDS & TECH. ACQUISITION & ASSISTANCE DIV. BLDG. 301, ROOM B117 GAITHERSBURG, MD 20899-0001			
17a. CONTRACTOR/OFFEROR TELEPHONE NO.				18a. PAYMENT WILL BE MADE BY NAT. INST. OF STANDARDS & TECH. ACCOUNTS PAYABLE DIV. BLDG. 101, ROOM A825 GAITHERSBURG, MD 20899-0001			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER				<input type="checkbox"/> 18b. SUBMIT INVOICE TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
19. ITEM NO	20. SCHEDULE OF SUPPLIES/SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
(Attach Additional Sheets as Necessary)							
25. ACCOUNTING AND APPROPRIATION DATA						26. TOTAL AWARD AMOUNT (For Govt Use Only)	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. 52.212-3 AND 52.212-5 ARE ATTACHED.						ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.	
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. 52.212-5 IS ATTACHED.						ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.	
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 3 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN. <input checked="" type="checkbox"/>				29. AWARD OF CONTRACT: REFERENCE _____ OFFER DATED _____. YOUR OFFER ON SOLICITATION (BLOCK 5) INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN IS ACCEPTED AS TO ITEMS: _____			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) LISA K. JANDOVITZ		31c. DATE SIGNED	
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, ACCEPT AS NOTED				33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		34. VOUCHER NUMBER	
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE				32c. DATE		35. AMOUNT VERIFIED CORRECT FOR	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		37. CHECK NUMBER	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER				41c. DATE		38. S/R ACCOUNT NUMBER	
				42a. RECEIVED BY (Print)		39. S/R VOUCHER NUMBER	
				42b. RECEIVED AT (Location)		40. PAID BY	
				42c. DATE REC'D (YY/MM/DD)		42d. TOTAL CONTAINERS	

TABLE OF CONTENTS

PAGE

SF1449 FORM	1
ADDENDA	2
CONTINUATION OF SF1449 BLOCKS 19, 20, 21, 22, 23, AND 24	2
A.1 SCHEDULE OF ITEMS	2
A.2 MANDATORY SPECIFICATIONS FOR A HIGH RESOLUTION GONIOMETER	3
A.3 User Manuals	8
A.4 DELIVERY	8
A.5 INSTALLATION	9
A.6 ACCEPTANCE CRITERIA	9
A.7 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)	9
A.8 CONTRACTING OFFICER'S AUTHORITY	10
A.9 ENERGY STAR	10
CONTRACT CLAUSES	11
B.1 52.212-4 CONTRACT TERMS AND CONDITIONS--COMMERCIAL	11
ITEMS (MAY 1997)	
B.2 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO	15
IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL	
ITEMS (AUG 1996)	
CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS	18
SOLICITATION PROVISIONS	19
D.1 52.212-1 INSTRUCTIONS TO OFFERORS--COMMERCIAL ITEMS	19
(OCT 1995)	
D.2 ADDENDUM TO FAR 52.212-1	21
D.3 EVALUATION--COMMERCIAL ITEMS	21
D.4 52.215-20 PLACE OF PERFORMANCE (APR 1984)	23
D.5 52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS	24
COMMERCIAL ITEMS (JAN 1997)	
D.6 1352.233-2 SERVICE OF PROTESTS	32
(DEVIATION FAR 52.233-2) (AUG 1996)	
D.7 DEPARTMENT OF COMMERCE AGENCY-LEVEL PROTEST	32
PROCEDURES LEVEL ABOVE THE CONTRACTING	
OFFICER (DEC 1996)	
D.8 DEPARTMENT OF COMMERCE AGENCY-LEVEL PROTEST	37
PROCEDURES LEVEL ABOVE THE CONTRACTING	
OFFICER (DEC 1996)	

ADDENDA

CONTINUATION OF SF1449 BLOCKS 19, 20, 21, 22, 23, AND 24

A.1 SCHEDULE OF ITEMS

CONTRACT LINE ITEM NUMBER	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL AMOUNT
0001	The Contractor shall provide and install a High Resolution Goniometer System (HRGS) for X-Ray Diffraction in accordance with (IAW) the Mandatory Specifications, Section A.2 of this contract.	01	EA	\$_____	\$_____
0001AA	All Manuals for Contractor's provided Software & Hardware IAW Section A.3 of this contract.	01	LOT	\$_____	\$_____
0001AB	Telephone & Programming Support for Controlling Software IAW Section A.2 of this Contract.	01	YR	\$_____	\$_____
0001AC	Telephone Support Warranty for IBM compatible PC IAW Section A.2 of this Contract.	03	YRs	\$_____	\$_____
0001AD	IBM compatible PC hardware Warranty IAW Section A.2 of this Contract.	01	YR	\$_____	\$_____
0001AE	Monitor Warranty IAW Section A.2 of this Contract.	03	YRs	\$_____	\$_____
0001AF	External Tape Backup Warranty IAW Section A.2 of this Contract.	01	YR	\$_____	\$_____
Total all CLINs 0001 - 0001AF:					\$_____

A.1 (Continued)

Not Separately Priced (NSP) may be noted if applicable for above items.

A.2 MANDATORY SPECIFICATIONS FOR A HIGH RESOLUTION GONIOMETER SYSTEM FOR X-RAY DIFFRACTION

1) General Description

The high resolution goniometer system (HRGS) shall provide high resolution angular positioning of specimens for x-ray diffraction studies. It shall include 5 rotation axes; coaxial Theta and Two-Theta, Phi(Kappa) and Kappa which form a cradle of "kappa" geometry, and a fifth axis, Phi(sample), perpendicular to Phi(Kappa) and normal to the surface of a powder specimen (See Figure 1). The Theta and Two-Theta rotation axes shall be equipped with optical encoders and shall provide 0.2 arcsec accuracy in angular positioning. The Kappa, Phi(Kappa) and Phi(sample) axes will allow the sample to be rotated about the Euler angles, Phi, Chi and Omega with a sphere-of-confusion of less than 40 micrometers in diameter. The controlling hardware and software shall be capable of collecting data scans through arbitrary directions in reciprocal space and slewing to within 0.5 arcsec of target angle angles in Theta and Two-Theta.

2) Goniometer Assembly

a) The goniometers shall utilize a ring gear assembly, suspended in two ball bearing races, driven by a worm gear with a ratio of 1:360 degrees.

b) The goniometers for the Theta and Two-Theta motions shall each exhibit an eccentricity about the rotation axis of less than 3 micrometers, a wobble of less than 5 arcsec, and a stiffness of less than 0.4 arcsec/Nm. They shall be of a size such that the encoders described in section 3 shall fit within the inner radius.

c) The goniometers for the Kappa and Phi(Kappa) motions shall each exhibit an eccentricity about its rotation axis of less than 3 micrometers, a wobble of less than 5 arcsec, and a stiffness of less than 0.45 arcsec/Nm.

d) The Theta and Two-Theta goniometers shall be mounted coaxially, with the base of the Theta goniometer being driven by the Two-Theta, such that full 360 degree motions, limited only by the "wind up" of the power supply and control cables, are provided by both goniometers. The coaxial alignment of the two goniometers shall be within 2 micrometers.

e) The wobble on the Theta/Two-Theta goniometer assembly shall be less than +/- 10 arcsec.

A.2 (Continued)

f) The HRGS shall include a pedestal base with four height adjustable feet with air pads such that the position of instrument can be adjusted in a precise manner.

g) It shall include a detector arm with dovetail and counter-weight.

h) The HRGS shall include a removable Kappa cradle with a Kappa angle of 50 degrees, a sphere-of-confusion of less than 20 micrometers, and minimum clearance of 68 mm between the uppermost portion of the Kappa goniometer assembly and the centerline of the x-ray beam trajectory. The distance between the mounting surface and the centerline of the x-ray beam trajectory shall not exceed 370 mm.

i) The sphere of confusion of the assembly which includes the Theta, Two-Theta, Kappa and Phi(Kappa) goniometers shall not exceed 40 micrometers.

j) The remaining axis Phi(sample), is provided by a Siemens D5000 transmission sample stage supplied by NIST.

k) The Kappa cradle shall include an adapter so that it will accept the NIST Siemens D5000 sample stage as a specimen holder.

l) The HRGS shall include an adapter to mount the Siemens D5000 stage directly to the Theta/Two-Theta assembly when the Kappa cradle is removed. The adapter shall position the specimen such that the distance between its mounting surface and the centerline of the x-ray beam trajectory is identical to that of the kappa cradle.

m) The HRGS shall include an alignment telescope.

n) The goniometer assembly shall have a total mass of at least 135 kg.

3) Encoders

a) The Theta and Two-Theta goniometers shall incorporate incremental encoders to provide 0.2 arcsec accuracy in angular position determination through the full range of 360 degrees.

b) The encoders shall operate by detecting photoelectrically a collimated light beam which is projected through a scanning reticle followed by a glass disc with radial graduations which rotates with the goniometer.

c) Each encoder shall include four reading stations 90 degrees apart. Each reader shall include a collimated light source, a reticle of four gratings fields offset by 1/4 of a period relative to one another and four photovoltaic cells.

A.2 (Continued)

d) The graduated disc shall have a line count of no less than 36000.

e) The interface for the encoders shall be a combined signal interpolater and evaluator with a total subdivision of 1024; the output shall be IEEE.

f) The output from the encoder interface shall be connected to an IEEE/488 adapter card for an ISA bus IBM compatible PC, for which a Lynux driver is available, and which is compatible with a data collection software package meeting the specifications of Section 7.

g) All five axes shall be encoded with optical zero point encoders which are interfaced to an IBM compatible PC.

h) The mounting of the encoders within the goniometers shall be according to the accepted procedures of the encoder manufacturer.

i) All cables required to connect the various components shall be included; their lengths shall be at least 6 meters.

4) Motion Control

a) The worm gears of the Theta and Two-Theta goniometers shall be directly (without the use of intermediate gears) driven by stepper motors which can operate with 25,000 micro steps per degree.

b) Motors for Theta and Two-Theta goniometers shall be NEMA size 34D, 4 phase, six lead, 6.1V, 2.5A per phase with minimum holding torque 550 oz-in with two phases energized.

c) The Kappa, Phi(kappa) and Phi(sample) goniometers shall be driven by stepper motors which can provide at least 1000 equally spaced steps per degree rotation of the goniometer (or per 360 degree rotation of the motor shaft). The worm gears of Kappa and Phi(Kappa) goniometers shall be directly (without the use of intermediate gears) driven by the stepper motors. The Kappa and Phi(Kappa) axes shall have an angular resolution of 0.001 degrees and a repeatability of 0.0005 degrees.

d) The motors for the Kappa, Phi(kappa) and Phi(sample) goniometers shall have a minimum starting torque of 0.5 Nm and be able to drive the goniometers at a minimum speed of 1 degree/sec and shall be size NEMA size 23.

e) The power supplies and drivers for the five stepper motors shall be included.

f) The stepper motors shall be controlled/indexed by a IBM PC

A.2 (Continued)

compatible adapter card, for which a Lynux driver is available, and is compatible with a data collection software package meeting the specifications of Section 7. The card shall be able to control a minimum of eight motors and support limit and home switches.

g) All cables required to connect the components shall be included; their lengths shall be at least 6 meters.

5) Data Acquisition

a) The HRGS shall include a low-noise shaping amplifier and a timing single-channel analyzer suitable for a Siemens D5000 scintillation detector contained within single width NIM module: gain range from x5 through x1250, noise <5 microV, preamp power out, pair resolution time <2 microsec, window width consistency <0.1%.

b) The HRGS shall include a microprocessor-controlled ratemeter consisting of a double wide NIM module which will automatically select the appropriate one of 15 scales and the appropriate time constant depending on the input signal and display the count rate in analog and digital form. A remote readout unit is to provide an analog display, an indication of the scale and an audio signal indicating the scale and count rate.

c) The HRGS shall include a 5 channel 16 bit counter-timer ISA interface card to fit IBM compatible PC and operate correctly with the Lynux operating system and the data collection software package outlined in Section 7. Counter inputs shall be software selectable and shall be gated in hardware or software. Input frequencies shall be from 0.001hz to 7mHz.

6) Operating Platform

a) The HRGS shall include an optical table measuring 1.2 x 2.35 x .2 meters constructed with a core of damping material and a metal upper surface.

b) The core material of the table shall be of plated steel honeycomb with a .49 in² cell size, a density of at least 18lbs/ft³ and a shear strength of at least 275,000 psi.

c) The surface of the table shall be of ferromagnetic stainless steel with a flatness of at least +/- .005", a thickness of at least 3/16", and individually sealed 1/4-20 tapped holes at 1" on center array.

d) The table shall have a second section measuring 1.2 x 1 x .5m, constructed with the same materials and to the same specifications as the main table, which bolts on to one end of the

A.2 (Continued)

main table to form a raised platform 0.5 above the surface of the main table.

e) The table shall include six highly damped, high stiffness leg frames with a gross capacity of at least 4000 lbs., 12" in length adjustable by +3".

7) Computer Software and Hardware

a) The controlling software shall operate on an IBM compatible PC running under the Lynx operating system. It shall be capable of controlling a kappa geometry instrument and allow scans in arbitrary directions in reciprocal space and the collection of data for pole figures. It shall include telephone and programming support for one full year from the date of purchase and the contractor shall develop an algorithm, such as the Xeno algorithm, which shall be capable of driving the Theta and Two-Theta goniometers to within 0.5 arcsec of a given target angle. It shall be macro based, with a library of predefined macros. Macros can be used for definition of data scans and file formats. It shall include a command line interpreter with variables, looping, and flow control. Hardware configuration shall employ spread-sheet-style format. It shall provide real time data plots on VGA and X Windows.

b) The HRGS shall include the Lynx operating system on CD.

c) The HRGS shall include two copies of software capable of fitting profile shape functions to observed data: Up to 100 peaks at a time, nonlinear fitting routines, automated peak finding, graphical peak fitting, 82 built-in functions, up to 15 user-programmed functions, data smoothing, background determination, Windows 95 operating system, GUI interface.

d) The HRGS shall include two copies of a program for graphical presentation of data in one, two and three dimensions: GUI interface, macro language, reads ASCII; spreadsheet; column data (ASCII and binary); generic binary data sets (byte, integer, long integer, float), HDF, HDF VSet, MatLab up to 32,000 columns; total data points limited by memory, save graphs as EPS, BMP, or HDF files, export data as text files, copy and paste data via the clipboard, curve fitting using built in and user supplied functions, surface, contour, vector, histogram, X-Y plots, animation, ray tracing, rendering, arbitrary orientation of data volume, variable perspective & light source, interpolation, crop data and display subregions, display values along a ray through the data volume.

e) The HRGS shall include an IBM compatible PC based on the Intel 200MHz Pentium Pro chip with 256KB on chip cache. It shall include: 32MB of EDO RAM memory, 2.1 and 2.5 GB E-IDE hard drives, 3.5" 1.44 MB floppy drive, 2x8X E-IDE CD-Rom drive, integrated MIDI

A.2 (Continued)

audio and 10baseT networking, 64bit 2D/3D 1280x1024 video card with 2 MB of RAM, 100BaseT card, two speakers with amplifiers, keyboard, mouse, power cords and Windows 95 operating system, 3 years telephone support warranty, 1 year hardware warranty. The monitor shall offer 16.2" diagonally measured viewing area, auto-sync capability from 30 to 65 KHz, 1280x1024 resolution, .28mm dot pitch, max refresh rate of 120 Hz at 1280x1024 resolution (non-interlaced), DDC2b & MPRII compliant, 3 year warranty.

f) The HRGS shall include an external tape backup capable of storing 4 to 8 GB of data on 4mm/120m DAT tapes: reads and writes 4mm helical scan DDS standard, connect to parallel (14MB/min), serial, and SCSI port (32MB/min) read after write verification, error rate less than 10^{-15} bits, 1 year warranty.

8) EVALUATION

a) The HRGS shall include electronic indicators using linear variable differential transformers as gage heads and an appropriate amplifier for readout. One gage head shall be of the cartridge type and have a range of 2.5mm and a resolution of 5 micrometers, linearity of .5%, max force of 20gr, hermetically sealed. The second gage head shall be a lever type and have a range of .25mm and a resolution of .1 micrometers, gage force of less than .14oz, linearity of .1%, clutch mounted swivels, reversing spring so as to read in both directions. The amplifier shall operate either on internal batteries or 110 ac line current. The amplifier shall include three selectable ranges with auto-range, RS232 output, 2 gage head input, analog output, auto-zero, auto-calibrate, hold resume, analog-digital display, keypad, repeatability of +/- 1 digit, calibration accuracy of +/- 1 digit, and a linear error of <.025% x full scale.

b) The HRGS shall include two 1" hardened stainless steel balls with a .062" diameter by .25" deep hole in them. They shall have a sphericity of 63.5 nm and surface quality of 12.5 nm.

A.3 User Manuals

The Contractor shall provide one set of the most current version of user manuals for all Contractor's provided software and hardware under this contract. These manuals shall be provided at no cost to the Government unless a price is specified in Section A.1. These manuals shall be delivered with the system. The Government has the right to reproduce the documents for internal use.

A.4 DELIVERY

The Contractor shall delivery the complete system within 120 calendar days after the date of contract award. Partial deliveries will not be accepted.

A.5 INSTALLATION

It is the Contractor's responsibility to install the HRGS apparatus.

A.6 ACCEPTANCE CRITERIA

The goniometer assembly shall be setup and verified to be fully functional on site for a period of 45 days.

a. The goniometers will be evaluated individually and collectively for aberrations with the following method:

i) Mount a 1" sphere, with a sphericity error $\leq \pm 0.1$ micron, at specimen location.

ii) Adjust with adjustable mount to bring sphere center onto rotation axis of table to be tested.

iii) Exercise each axis to be tested through full range of motion and record readings from LVDT indicators. LVDT indicators used shall be calibrated and have a range of ± 50 micron and an accuracy $< 5\%$ of reading.

iv) Remove sphere centering error (first harmonic or once-per-revolution error motion).

v) Plot error residuals as function of table angular position and evaluate.

b. The encoding of the Theta and Two-Theta goniometers will be evaluated by the method of subdivision (NBS Internal Report 75-750, Charles P. Reeve 1975) and with the use of an optically machined glass polygon mounted on the rotation axes in conjunction with an autocollimator.

c. Indicators and ball dimensions will be evaluated and calibrated with the procedures of the NIST Precision Engineering Division.

d. The computer hardware and software will be evaluated with simulated data scans and checking of all specified features.

A.7 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)

(a) (To be designated at time of award), is hereby designated as the Contracting Officer's Technical Representative. The COTR may be changed at any time by the Government without prior notice to the contractor but notification of the change, including the name and address of the successor COTR, will be promptly provided to the Contractor by the Contracting Officer in writing. The COTR is located

A.7 (Continued)

at the National Institute of Standard and Technology, _____,
Building _____, Room _____, Gaithersburg, MD 20899. His telephone
number is _____.

(b) The responsibilities and limitations of the COTR are as follows:

- (1) The Contracting Officer's Technical Representative is responsible for the technical aspects of the project and technical liaison with the Contractor. The COTR is also responsible for the final inspection and acceptance of all reports, and such other responsibilities as may be specified in the contract.
- (2) The COTR is not authorized to make any commitments or otherwise obligate the Government or authorize any changes which affect the Contract price, terms or conditions. Any Contractor request for changes shall be referred to the Contracting Officer directly or through the COTR. No such changes shall be made without the expressed prior authorization of the Contracting Officer. The COTR may designate assistant COTR(s) to act for him by naming such assistant in writing and transmitting a copy of such designation through the Contracting Officer to the Contractor.

A.8 CONTRACTING OFFICER'S AUTHORITY

The Contracting Officer is the only person authorized to make or approve any changes in any of the requirements of this contract and notwithstanding any provisions contained elsewhere in this contract, the said authority remains solely in the Contracting Officer. In the event the Contractor makes any changes at the direction of any person other than the Contracting Officer, the change will be considered to have been made without authority and no adjustment will be made in the contract prices to cover an increase in costs incurred as a result thereof.

A.9 ENERGY STAR

The Contractor shall provide microcomputers, including personal computers, monitors, and printers, to meet "EPA Energy Star" requirements for energy efficiency. They shall be equipped with the energy efficient low-power standby feature as defined by the EPA Energy Star computers program. This feature shall be activated when the equipment is shipped and shall be capable of entering and recovering from the low-power state unless the equipment meets Energy Star efficiency levels at all times.

CONTRACT CLAUSES

B.1 52.212-4 CONTRACT TERMS AND CONDITIONS--COMMERCIAL ITEMS (MAY 1997)

- (a) Inspection/Acceptance. The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its post-acceptance rights (1) within a reasonable time after the defect was discovered or should have been discovered; and (2) before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.
- (b) Assignment. The Contractor or its assignee's rights to be paid amounts due as a result of performance of this contract, may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727).
- (c) Changes. Changes in the terms and conditions of this contract may be made only by written agreement of the parties.
- (d) Disputes. This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.
- (e) Definitions. The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.
- (f) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such

B.1 (Continued)

occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

- (g) Invoice. The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized,) to the address designated in the contract to receive invoices. An invoice must include--

- (1) Name and address of the Contractor;
- (2) Invoice date;
- (3) Contract number, contract line item number and, if applicable, the order number;
- (4) Description, quantity, unit of measure, unit price and extended price of the items delivered;
- (5) Shipping number and date of shipment including the bill of lading number and weight of shipment if shipped on Government bill of lading;
- (6) Terms of any prompt payment discount offered;
- (7) Name and address of official to whom payment is to be sent; and
- (8) Name, title, and phone number of person to be notified in event of defective invoice.

Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. Contractors are encouraged to assign an identification number to each invoice.

- (h) Patent indemnity. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.
- (i) Payment. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB)

B.1 (Continued)

Circular A-125, Prompt Payment. Unless otherwise provided by an addendum to this contract, the Government shall make payment in accordance with the clause at FAR 52.232.33, Mandatory Information for Electronic Funds Transfer Payment, which is incorporated herein by reference.

In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if electronic funds transfer payment is made.

- (j) Risk of loss. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:
 - (1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or
 - (2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.
- (k) Taxes. The contract price includes all applicable Federal, State, and local taxes and duties.
- (l) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.
- (m) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to

B.1 (Continued)

provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

- (n) Title. Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.
- (o) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.
- (p) Limitation of liability. Except as otherwise provided by an express or implied warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.
- (q) Other compliances. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.
- (r) Compliance with laws unique to Government contracts. The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C 327, et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986; 41 U.S.C. 251 related to whistle blower protections; and 49 U.S.C 40118, Fly American.
- (s) Order of precedence. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order: (1) the schedule of supplies/services; (2) the Assignments, Disputes, Payments, Invoice, Other Compliances, and Compliance with Laws Unique to Government Contracts paragraphs of this clause; (3) the clause at 52.212-5; (4) addenda to this solicitation or contract, including any license agreements for computer software; (5) solicitation provisions if this is a solicitation; (6) other paragraphs of this clause; (7) the Standard Form 1449; (8) other documents, exhibits, and attachments; and (9) the specification.

B.2 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO
IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL
ITEMS (AUG 1996)

(a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-3, Convict Labor (E.O. 11755); and

(2) 52.233-3, Protest After Award (31 U.S.C 3553).

(b) The Contractor agrees to comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

XX (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).

XX (2) 52.203-10, Price or Fee Adjustment for Illegal or Improper Activity (41 U.S.C. 423).

XX (3) 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (15 U.S.C. 637 (d)(2) and (3));

— (4) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4));

— (5) 52.219-14, Limitation on Subcontracting (15 U.S.C. 637(a)(14)).

XX (6) 52.222-26, Equal Opportunity (E.O. 11246).

XX (7) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 4212).

XX (8) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793).

XX (9) 52.222-37, Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).

XX (10) 52.225-3, Buy American Act-Supplies (41 U.S.C. 10).

— (11) 52.225-9, Buy American Act-Trade Agreements Act-Balance of Payments Program (41 U.S.C. 10, 19 U.S.C.

B.2 (Continued)

2501-2582).

____ (12) Reserved.

XX (13) 52.225-18, European Union Sanction for End Products
(E.O. 12849).

(14) 52.225-19, European Union Sanction for Services (E.O.
12849).

XX (15) (i) 52.225-21, Buy American Act-North American Free
Trade Agreement Implementation Act-Balance of Payments
Program (41 U.S.C 10, Pub. L. 103-187).

____ (ii) Alternate I of 52.225-21.

___ (16) 52.239-1, Privacy or Security Safeguards (5 U.S.C.
552a).

___ (17) 52.247-64, Preference for Privately Owned U.S.- Flag
Commercial Vessels (46 U.S.C. 1241).

(c) The Contractor agrees to comply with the FAR clauses in this
paragraph (c), applicable to commercial services, which the
Contracting Officer has indicated as being incorporated in
this contract by reference to implement provisions of law or
executive orders applicable to acquisitions of commercial
items or components:

___ (1) 52.222-41, Service Contract Act of 1965, As amended
(41 U.S.C. 351, et seq.).

___ (2) 52.222-42, Statement of Equivalent Rates for Federal
Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(3) 52.222-43, Fair Labor Standards Act and Service
Contract Act-Price Adjustment (Multiple Year and Option
Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(4) 52.222-44, Fair Labor Standards Act and Service
Contract Act-Price Adjustment (29 U.S.C. 206 and 41
U.S.C. 351, et seq.).

___ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits
Applicable to Successor Contract Pursuant to Predecessor
Contractor Collective Bargaining Agreement (CBA) (41
U.S.C. 351, et seq.).

(d) Comptroller General Examination of Record. The Contractor
agrees to comply with the provisions of this paragraph (d) if
this contract was awarded using other than sealed bid, is in

B.2 (Continued)

excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

- (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
 - (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
 - (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.
- (e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--
- (1) 52.222-26, Equal Opportunity (E.O. 11246);
 - (2) 52.222-35, Affirmative Action for Special Disabled and Vietnam Era Veterans (38 U.S.C. 2012(a));
 - (3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793); and
 - (4) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS

Attachment 1: Figure 1, 1 page.

[Note: If this solicitation is obtained through the World Wide Web, Attachment 1 can be obtained by requesting a copy in writing to: National Institute of Standards and Technology (NIST), Acquisition and Assistance Division, Attn: Kathleen Lettowsky, Building 301, Room B117, Gaithersburg, MD 20899. The request can be telefaxed to (301)963-7732.]

SOLICITATION PROVISIONS

D.1 52.212-1 INSTRUCTIONS TO OFFERORS--COMMERCIAL ITEMS (OCT 1995)

- (a) Standard industrial classification (SIC) code and small business size standard. The SIC code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). However, the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees.
- (b) Submission of offers. Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show--
 - (1) The solicitation number;
 - (2) The time specified in the solicitation for receipt of offers;
 - (3) The name, address, and telephone number of the offeror;
 - (4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
 - (5) Terms of any express warranty;
 - (6) Price and any discount terms;
 - (7) "Remit to" address, if different than mailing address;
 - (8) A completed copy of the representations and certifications at FAR 52.212-3;
 - (9) Acknowledgment of Solicitation Amendments;
 - (10) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information); and
 - (11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all

D.1 (Continued)

terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.

- (c) Period for acceptance of offers. The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.
- (d) Product samples. When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.
- (e) Multiple offers. Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.
- (f) Late offers. Offers or modifications of offers received at the address specified for the receipt of offers after the exact time specified for receipt of offers will not be considered.
- (g) Contract award (not applicable to Invitation for Bids). The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.
- (h) Multiple awards. The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.
- (i) Availability of requirements documents cited in the

D.1 (Continued)

solicitation.

- (1) The Index of Federal Specifications, Standards and Commercial Item Descriptions and the documents listed in it may be obtained from the General Services Administration, Federal Supply Service Bureau, Specifications Section, Suite 8100, 470 L'Enfant Plaza, SW., Washington, DC 20407 ((202) 755-0325/0326).
- (2) The DOD Index of Specifications and Standards (DODISS) and documents listed in it may be obtained from the Standardization Documents Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094 (telephone (215) 697-2569).
 - (i) Automatic distribution may be obtained on a subscription basis.
 - (ii) Individual documents may be ordered from the Telespecs ordering system by touch-tone telephone. A customer number is required to use this service and can be obtained from the Standardization Documents Order Desk or the Special Assistance Desk (telephone (610)607-2667/2179).
- (3) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication or maintenance.

D.2 ADDENDUM TO FAR 52.212-1

(a) In addition to those items specified in Section D.1, paragraph (b), Offerors shall submit two copies of their response to this Request for Proposal to the National Institute of Standards and Technology, Acquisition and Assistance Division, Building 301, Room B117, Gaithersburg, MD 20899, Attn: Kathleen Lettofsky, Solicitation No. 52SBNB7C1112.

(b) In addition to the past performance information specified in Section D.1, paragraph (b), subparagraph (10), the references provided shall be those of which the customer has taken delivery in excess of at least a year, as evidence of past performance on similar or related contracts.

D.3 EVALUATION--COMMERCIAL ITEMS

- (a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered.

D.3 (Continued)

- (b) Offerors shall comply with the provision at FAR 52.212-1(b) and submit a technical description of the items being offered in sufficient detail to evaluate compliance with the mandatory specification in this solicitation.
- (c) The Government will make award to one offeror. The proposal selected for contract award will be made to the offeror whose proposal conforms to the mandatory specification Section A.2 and offers the best value to the Government, technical, price and other factors considered. In determining best value, the following are taken into consideration: (1) whose proposal is technically acceptable; (2) whose technical/price relationship is the most advantageous to the Government, and (3) who is responsible within the meaning of the Federal Acquisition Regulation 9.104. Price will be a factor in the award decision, although the award may not necessarily be made to that offeror submitting the lowest price. Likewise, award will not necessarily be made to the highest technical evaluation or that proposal which combined has the highest technical and price evaluated rating.
- (d) The Government reserves the right to determine which proposal contains the combination of those criteria offering the best value. This will be determined by comparing differences in the value of the technical features with differences in price to the Government. In making this comparison, the Government is concerned with attaining the most advantageous balance between technical excellence and price to the Government.
- (e) The evaluation of the proposals will be based on the following two major criteria: Technical and Price. For this solicitation, technical factors are significantly more important than the price factor. It should be noted that point scores are merely guides for source selection and the mathematical outcome is not necessarily determinative of the awardee.
 - (1) Technical Scoring - The individual subfactors of this criteria will receive a point score rating along with a narrative description. These subfactors will be combined into a merit rating.
- (f) TECHNICAL FACTORS. Technical proposals will be evaluated by the TECHNICAL SUBFACTORS listed below in descending order of importance. Subfactor 1 is worth one-half of the total technical points. Subfactor 2 is worth one-fourth of the total technical points. Subfactor 3 is worth one-fourth of the total technical points.

- (1) Technical Subfactor 1 - Evaluation of this subfactor

D.3 (Continued)

will be based on the technical information provided in accordance with paragraph (b) above and, which documents adherence to the Mandatory Specifications in Section A.2. The contractor shall have the ability to provide all the deliverables stated in the Specifications for a High Resolution Goniometer System for X-Ray Diffraction.

(2) Technical Subfactor 2 - Evaluation of this subfactor will be based on the technical information provided for the proposed hardware, which is supplied by the offeror and the offeror's suppliers, and demonstrates its ability to meet the specifications in Section A.2.

(3) Technical Subfactor 3 - Evaluation of this subfactor will be based on the past performance of the prospective contractor. This will be based on the information received from the references provided.

- (g) PRICE FACTOR. The proposed price will be evaluated for reasonableness.
- (h) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

D.4 52.215-20 PLACE OF PERFORMANCE (APR 1984)

- (a) The offeror or quoter, in the performance of any contract resulting from this solicitation, [] intends, [] does not intend (check applicable box) to use one or more plants or facilities located at a different address from the address of the offeror or quoter as indicated in this proposal or quotation.
- (b) If the offeror or quoter checks "intends" in paragraph (a) above, it shall insert in the spaces provided below the required information:

D.4 (Continued)

Place of Performance (Street Address, City, County, State, Zip Code)	Name and Address of Owner and Operator of the Plant or Facility if Other than Offeror or Quoter
_____	_____
_____	_____
_____	_____
_____	_____

D.5 52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS
COMMERCIAL ITEMS (JAN 1997)

(a) Definitions. As used in this provision:

Emerging small business means a small business concern whose size is no greater than 50 percent of the numerical size standard for the standard industrial classification code designated.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

Small disadvantaged business concern means a small business concern that--

- (1) Is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business, having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and
- (2) Has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian organization and which meets the requirements of 13 CFR Part 124.

Women-owned small business concern means a small business concern--

D.5 (Continued)

(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

Women-owned business concern means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer identification number (TIN) (26 U.S.C. 6050M).

(1) Taxpayer Identification Number (TIN).

☐ TIN: _____.

☐ TIN has been applied for.

☐ TIN is not required because:

☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

☐ Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of a Federal, state, or local government;

☐ Other. State basis. _____

(2) Corporate Status.

☐ Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;

☐ Other corporate entity;

☐ Not a corporate entity:

☐ Sole proprietorship

D.5 (Continued)

☐ Partnership

☐ Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(3) Common Parent.

☐ Offeror is not owned or controlled by a common parent.

Name and TIN of common parent:

Name _____

TIN _____

(c) Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it ☐ is, ☐ is not a small business concern.

(2) Small disadvantaged business concern. The offeror represents that it ☐ is, ☐ is not a small disadvantaged business concern.

(3) Women-owned small business concern. The offeror represents that it ☐ is, ☐ is not a women-owned small business concern.

Note: Complete paragraphs (c)(4) and (c)(5) only if this solicitation is expected to exceed the simplified acquisition threshold.

(4) Women-owned business concern. The offeror represents that it ☐ is, ☐ is not, a women-owned business concern.

(5) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

D.5 (Continued)

(6) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. [Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.]

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it [] is, [] is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).) Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts)

(Check one of the following):

Number of Employees	Average Annual Gross Revenues
<input type="checkbox"/> 50 or fewer	<input type="checkbox"/> \$1 million or less
<input type="checkbox"/> 51-100	<input type="checkbox"/> \$1,000,001-\$2 million
<input type="checkbox"/> 101-250	<input type="checkbox"/> \$2,000,001-\$3.5 million
<input type="checkbox"/> 251-500	<input type="checkbox"/> \$3,500,001-\$5 million
<input type="checkbox"/> 501-750	<input type="checkbox"/> \$5,000,001-\$10 million
<input type="checkbox"/> 751-1,000	<input type="checkbox"/> \$10,000,001-\$17 million
<input type="checkbox"/> Over 1,000	<input type="checkbox"/> Over \$17 million

(d) Certifications and representations required to implement provisions of Executive Order 11246--

(1) Certification of non-segregated facilities. (Applies only if the contract amount is expected to exceed \$10,000)--

D.5 (Continued)

By submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees, any facilities that are segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise and that it does not and will not permit its employees to perform their services at any location where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(2) Previous Contracts and Compliance. The offeror represents that--

(i) It [] has, [] has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order 10925, or the clause contained in Section 201 of Executive Order 11114; and

(ii) It [] has, [] has not, filed all required compliance reports.

(3) Affirmative Action Compliance. The offeror represents that--

(i) It [] has developed and has on file, [] has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It [] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) Buy American Act-Trade Agreements-Balance of Payments

D.5 (Continued)

Program Certificate. (Applies only if FAR clause 52.225-9, Buy American Act-Trade Agreement-Balance of Payments Program, is included in this solicitation.)

- (1) The offeror hereby certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product (as defined in the clause entitled "Buy American Act-Trade Agreements Balance of Payments Program") and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States, a designated country, a North American Free Trade Agreement (NAFTA) country, or a Caribbean Basin country, as defined in section 25.401 of the Federal Acquisition Regulation.

- (2) Excluded End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN
---------------	-------------------

_____	_____
_____	_____

(List as necessary)

- (3) Offers will be evaluated by giving certain preferences to domestic end products, designated country end products, NAFTA country end products, and Caribbean Basin country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (f)(2) of this provision, offerors must identify and certify below those excluded end products that are designated or NAFTA country end products, or Caribbean Basin country end products. Products that are not identified and certified below will not be deemed designated country end products, NAFTA country end products, or Caribbean Basin country end products. Offerors must certify by inserting the applicable line item numbers in the following:

- (i) The offeror certifies that the following supplies qualify as "designated or NAFTA country end products" as those terms are defined in the clause entitled "Buy American Act-Trade Agreements-Balance of Payments Program:"

D.5 (Continued)

(Insert line item numbers)

- (ii) The offeror certifies that the following supplies qualify as "Caribbean Basin country end products" as that term is defined in the clause entitled "Buy American Act-Trade Agreements--Balance of Payments Program":

(Insert line item numbers)

(4) Offers will be evaluated in accordance with FAR Part 25.

- (g) (1) Buy American Act-North American Free Trade Agreement Implementation Act-Balance of Payments Program Certificate. (Applies only if FAR clause 52.225-21, Buy American Act-North American Free Trade Agreement Implementation Act-Balance of Payments Program, is included in this solicitation.)

- (i) The offeror certifies that each end product being offered, except those listed in paragraph (g)(1)(ii) of this provision, is a domestic end product (as defined in the clause entitled "Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program," and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States.

- (ii) Excluded End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN
---------------	----------------------

_____	_____
_____	_____

(List as necessary)

- (iii) Offers will be evaluated by giving certain preferences to domestic end products or NAFTA country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (g)(1)(ii) of this provision, offerors must identify and certify below those excluded end products that are NAFTA country end products.

Products that are not identified and certified below will not be deemed NAFTA country end products. The offeror certifies that the following supplies qualify as "NAFTA country end products" as that term is defined in the clause entitled "Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program":

(Insert line item numbers)

- (iv) Offers will be evaluated in accordance with FAR Part 25 of the Federal Acquisition Regulation. In addition, if this solicitation is for supplies for use outside the United States, an evaluation factor of 50 percent will be applied to offers of end products that are not domestic or NAFTA country end products.

- (2) Alternate I. If Alternate I to the clause at 52.225-21 is included in this solicitation, substitute the following paragraph (g)(1)(iii) for paragraph (g)(1)(iii) of this provision:

- (g) (1) (iii) Offers will be evaluated by giving certain preferences to domestic end products or Canadian end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (b) of this provision, offerors must identify and certify below those excluded end products that are Canadian end products. Products that are not identified and certified below will not be deemed Canadian end products.

The offeror certifies that the following supplies qualify as "Canadian end products" as that term is defined in the clause entitled "Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program":

(Insert line item numbers)

D.5 (Continued)

(h) Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549). The offeror certifies, to the best of its knowledge and belief, that--

- (1) The offeror and/or any of its principals [] are, [] are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency, and
- (2) [] Have, [] have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and [] are, [] are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

D.6 1352.233-2 SERVICE OF PROTESTS
(DEVIATION FAR 52.233-2) (AUG 1996)

- (a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

National Institute of Standards and Technology
Acquisition and Assistance Division
Building 301, Room B117
Gaithersburg, MD 20899
ATTN: LISA K. JANDOVITZ

- (b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

D.7 DEPARTMENT OF COMMERCE AGENCY-LEVEL PROTEST
PROCEDURES LEVEL ABOVE THE CONTRACTING
OFFICER (DEC 1996)

I. PURPOSE: To implement the requirements of Executive Order No.

D.7 (Continued)

12979 and Federal Acquisition Regulation (FAR 33.103).

On October 25, 1995, President Clinton signed Executive Order No. 12979 which directs heads of executive agencies to develop administrative procedures for resolving protests to awards of procurement contracts within their agencies at a level above the contracting officer. Authority to administer procurement-related directives has been delegated within the Department of Commerce through the Chief Financial Officer and Assistant Secretary for Administration to the Director for Acquisition Management (Procurement Executive).

The Department's goal is to encourage protesters to resolve their protests at the agency level, help build confidence in the Government's acquisition system, and reduce protests to the General Accounting Office and other external fora. Prior to submission of an agency protest, all parties shall use their best efforts to resolve concerns raised by an interested party at the contracting officer level through open and frank discussions. If concerns cannot be resolved, protesters may use these procedures when a resolution is requested from the agency at a level above the contracting officer.

II. DEFINITIONS:

An agency protest is one that may be filed with either the contracting officer or the protest decision authority but not both. When a protester decides to file a protest at the agency level with the protest decision authority, the guidelines set forth in these established agency level protest procedures above the contracting officer apply. These procedures are in addition to the existing protest procedures contained in the Federal Acquisition Regulation (FAR) Part 33.102. A day is a calendar day. In computing a period of time for the purpose of these procedures, the day from which the period begins to run is not counted. When the last day of the period is a Saturday, Sunday, or Federal holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal holiday. Similarly, when the Washington, DC offices of the Department of Commerce are closed for all or part of the last day, the period extends to the next day on which the Department is open.

III. PROCEDURES:

- a. Protesters using these procedures may protest to the protest decision authority who will make the final decision for the Department. Protests shall be addressed to:

Mr. Jorge R. Urrutia
Director of Administration
National Institute of Standards and Technology

D.7 (Continued)

Building 101, Room A1105
Gaithersburg, Maryland 20899
FAX No. 301-926-7203

The outside of the envelope or beginning of the FAX transmission must be marked "Agency-level Protest". The protester shall also provide a copy of the protest within 1 day to the responsible contracting officer and a copy to the addressee indicated below:

Contract Law Division
Office of the Assistant General Counsel for Finance and
Litigation
Department of Commerce, Room H5882
14th Street and Constitution Avenue, N.W.
Washington, D.C. 20230
(FAX Number 202-482-5858)

- b. Election of forum: While a protest is pending at the agency level with the protest decision authority, the protester agrees not to protest to the General Accounting Office (GAO) or any other external fora. If the protester has already filed with the GAO or other external fora, the procedures described here may not be used.
 1. Protests based upon alleged improprieties in a solicitation which are apparent prior to bid opening or time set for receipt of proposals shall be filed prior to bid opening or the time set for receipt of proposals. If the contract has been awarded, protests must be filed within 10 days after contract award or 5 days after the date the protester was given the opportunity to be debriefed, whichever date is later. In cases other than those covered in the preceding two sentences, protests shall be filed not later than 10 days after the basis of the protest is known or should have been known, whichever is earlier.
 2. To be filed on a given day, protests must be received by 4:30 PM current local time. Any protests received after that time will be considered to be filed on the next day. Incomplete submissions will not be considered filed until all information is provided.
 3. To be complete, protests must contain the following information:
 - (i) the protester's name, address, telephone number, and fax number
 - (ii) the solicitation or contract number, name of contracting office and the contracting officer

D.7 (Continued)

- (iii) a detailed statement of all factual and legal grounds for protests, and an explanation of how the protester was prejudiced
- (iv) copies of relevant documents supporting protester's statement
- (v) a request for ruling by the agency
- (vi) statement as to form of relief requested
- (vii) all information establishing that the protester is an interested party for the purpose of filing a protest
- (viii) all information establishing the timeliness of the protest.

All protests must be signed by an authorized representative of the protester.

Within 14 days after the protest is filed, the contracting officer will prepare an administrative report that responds to the issues raised by the protester and addresses any other issues, which, even if not raised by the protester, have been identified by agency officials as being relevant to the fairness of the procurement process. For good cause shown, the protest decision authority may grant an extension of time for filing the administrative report and for issuing the written decision. When an extension is granted, the protest decision authority will notify the protester and all interested parties within 1 day of the decision to grant the extension.

Unless an extension is granted, the protest decision authority will issue a decision within 35 days of the protest. The protest decision authority's final decision will be binding on the Department of Commerce and not subject to further appeals.

The protest decision authority shall send a written ruling and a summary of the reasons supporting the ruling to the protester by certified mail, return receipt requested with information copies to the applicable contracting office and Office of Acquisition Management.

Effect of protest on award and performance:

When a protest is filed prior to award, a contract may

D.7 (Continued)

not be awarded unless authorized by the Head of the Contracting Activity (HCA) based on a written finding that:

- (i) the supplies or services are urgently required,
- (ii) delivery or performance would be unduly delayed by failure to make the award promptly, or
- (iii) a prompt award will be in the best interest of the Government.

When a protest is filed within 10 days after contract award or 5 days after a debriefing date was offered to the protester under a timely debriefing request in accordance with FAR 15.1004, whichever is later, the contracting officer shall immediately suspend performance pending the resolution of the protest within the agency, including any review by an independent higher official, unless continued performance is justified. The HCA may authorize contract performance, notwithstanding the protest, based on a written finding that:

- (i) contract performance would be in the best interest of the United States, or
- (ii) urgent and compelling circumstances that significantly affect the interests of the United States will not permit waiting for a decision.

IV. REMEDIES:

The protest decision authority may grant one or more of the following remedies:

- (1) terminate the contract,
- (2) re-compete the requirement,
- (3) issue a new solicitation,
- (4) refrain from exercising options under the contract,
- (5) award a contract consistent with statutes and regulations,
- (6) amend the solicitation provisions which gave rise to the protest and continue with the procurement,
- (7) such other remedies as the decision-maker may determine are necessary to correct a defect. Designated Protest

D.7 (Continued)

Decision Authority for Operating Unit as follows:

D.8 DEPARTMENT OF COMMERCE AGENCY-LEVEL PROTEST
PROCEDURES LEVEL ABOVE THE CONTRACTING
OFFICER (DEC 1996)

I. PURPOSE: To implement the requirements of Executive Order No. 12979 and Federal Acquisition Regulation (FAR 33.103).

On October 25, 1995, President Clinton signed Executive Order No. 12979 which directs heads of executive agencies to develop administrative procedures for resolving protests to awards of procurement contracts within their agencies at a level above the contracting officer. Authority to administer procurement-related directives has been delegated within the Department of Commerce through the Chief Financial Officer and Assistant Secretary for Administration to the Director for Acquisition Management (Procurement Executive).

The Department's goal is to encourage protesters to resolve their protests at the agency level, help build confidence in the Government's acquisition system, and reduce protests to the General Accounting Office and other external fora. Prior to submission of an agency protest, all parties shall use their best efforts to resolve concerns raised by an interested party at the contracting officer level through open and frank discussions. If concerns cannot be resolved, protesters may use these procedures when a resolution is requested from the agency at a level above the contracting officer.

II. DEFINITIONS:

An agency protest is one that may be filed with either the contracting officer or the protest decision authority but not both. When a protester decides to file a protest at the agency level with the protest decision authority, the guidelines set forth in these established agency level protest procedures above the contracting officer apply. These procedures are in addition to the existing protest procedures contained in the Federal Acquisition Regulation (FAR) Part 33.102. A day is a calendar day. In computing a period of time for the purpose of these procedures, the day from which the period begins to run is not counted. When the last day of the period is a Saturday, Sunday, or Federal holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal holiday. Similarly, when the Washington, DC offices of the Department of Commerce are closed for all or part of the last day, the period extends to the next day on which the Department is open.

III. PROCEDURES:

D.8 (Continued)

- a. Protesters using these procedures may protest to the protest decision authority who will make the final decision for the Department. Protests shall be addressed to:

Mr. Jorge R. Urrutia
Director of Administration
National Institute of Standards and Technology
Building 101, Room A1105
Gaithersburg, Maryland 20899
FAX No. 301-926-7203

The outside of the envelope or beginning of the FAX transmission must be marked "Agency-level Protest". The protester shall also provide a copy of the protest within 1 day to the responsible contracting officer and a copy to the addressee indicated below:

Contract Law Division
Office of the Assistant General Counsel for Finance and
Litigation
Department of Commerce, Room H5882
14th Street and Constitution Avenue, N.W.
Washington, D.C. 20230
(FAX Number 202-482-5858)

- b. Election of forum: While a protest is pending at the agency level with the protest decision authority, the protester agrees not to protest to the General Accounting Office (GAO) or any other external fora. If the protester has already filed with the GAO or other external fora, the procedures described here may not be used.
 1. Protests based upon alleged improprieties in a solicitation which are apparent prior to bid opening or time set for receipt of proposals shall be filed prior to bid opening or the time set for receipt of proposals. If the contract has been awarded, protests must be filed within 10 days after contract award or 5 days after the date the protester was given the opportunity to be debriefed, whichever date is later. In cases other than those covered in the preceding two sentences, protests shall be filed not later than 10 days after the basis of the protest is known or should have been known, whichever is earlier.
 2. To be filed on a given day, protests must be received by 4:30 PM current local time. Any protests received after that time will be considered to be filed on the next day. Incomplete submissions will not be considered filed until all information is provided.

D.8 (Continued)

3. To be complete, protests must contain the following information:

- (i) the protester's name, address, telephone number, and fax number
- (ii) the solicitation or contract number, name of contracting office and the contracting officer
- (iii) a detailed statement of all factual and legal grounds for protests, and an explanation of how the protester was prejudiced
- (iv) copies of relevant documents supporting protester's statement
- (v) a request for ruling by the agency
- (vi) statement as to form of relief requested
- (vii) all information establishing that the protester is an interested party for the purpose of filing a protest
- (viii) all information establishing the timeliness of the protest.

All protests must be signed by an authorized representative of the protester.

Within 14 days after the protest is filed, the contracting officer will prepare an administrative report that responds to the issues raised by the protester and addresses any other issues, which, even if not raised by the protester, have been identified by agency officials as being relevant to the fairness of the procurement process. For good cause shown, the protest decision authority may grant an extension of time for filing the administrative report and for issuing the written decision. When an extension is granted, the protest decision authority will notify the protester and all interested parties within 1 day of the decision to grant the extension.

Unless an extension is granted, the protest decision authority will issue a decision within 35 days of the protest. The protest decision authority's final decision will be binding on the Department of Commerce and not subject to further appeals.

D.8 (Continued)

The protest decision authority shall send a written ruling and a summary of the reasons supporting the ruling to the protester by certified mail, return receipt requested with information copies to the applicable contracting office and Office of Acquisition Management.

Effect of protest on award and performance:

When a protest is filed prior to award, a contract may not be awarded unless authorized by the Head of the Contracting Activity (HCA) based on a written finding that:

- (i) the supplies or services are urgently required,
- (ii) delivery or performance would be unduly delayed by failure to make the award promptly, or
- (iii) a prompt award will be in the best interest of the Government.

When a protest is filed within 10 days after contract award or 5 days after a debriefing date was offered to the protester under a timely debriefing request in accordance with FAR 15.1004, whichever is later, the contracting officer shall immediately suspend performance pending the resolution of the protest within the agency, including any review by an independent higher official, unless continued performance is justified. The HCA may authorize contract performance, notwithstanding the protest, based on a written finding that:

- (i) contract performance would be in the best interest of the United States, or
- (ii) urgent and compelling circumstances that significantly affect the interests of the United States will not permit waiting for a decision.

IV. REMEDIES:

The protest decision authority may grant one or more of the following remedies:

- (1) terminate the contract,
- (2) re-compete the requirement,
- (3) issue a new solicitation,

D.8 (Continued)

- (4) refrain from exercising options under the contract,
- (5) award a contract consistent with statutes and regulations,
- (6) amend the solicitation provisions which gave rise to the protest and continue with the procurement,
- (7) such other remedies as the decision-maker may determine are necessary to correct a defect. Designated Protest Decision Authority for Operating Unit as follows: